Construction

Sikaflex®-Construction (D)

1-Part Polyurethane Sealant for Building Joints

Product Description	**Sikaflex®-Construction (D)** is a one part, moisture curing, elastic joint sealant based on polyurethane. Suitable for indoor and outdoor applications in hot and tropical climates.
Uses	**Sikaflex®-Construction (D)** is suitable for sealing joints in building construction such as balcony parapets, connection joints (around windows and doors, pre-cast concrete panels, facades, metal claddings, concrete elements) as well as joints in wood and metal structures.
Characteristics / Advantages	■ UV Stable ■ Excellent adhesion to many substrates ■ Bubble free curing ■ Very short cut off string ■ Tack free surface ■ High tear strength
Tests	
Approval / Standards	ISO 11600 Classification F 25 HM / F 20 LM

Product Data

Form

Colours	White, concrete grey. Other colours are available to order.
Packaging	600 ml sausages, 20 sausages per box

Storage

Storage Conditions / Shelf Life	12 months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.

Technical Data

Chemical Base	1-part polyurethane, moisture curing	
Density	~ 1.33 kg/lt (colour concrete grey)	(DIN 53479)
Skinning Time	~ 60 minutes (+23°C / 50% r.h.)	
Curing Rate	~ 1 mm/24 hours (+23°C / 50% r.h.)	
Movement Capability	25%	

Joint Dimensions	Min. width = 10 mm / max. width = 35 mm	
Sag-Flow	0 mm , very good	(DIN EN ISO 7390)
Service Temperature	-40°C to +70°C	

Mechanical / Physical Properties

Tear Strength	~ 6 N/mm (+23°C / 50% r.h.)	(DIN 53515)
Shore A Hardness	~ 25 after 28 days (+23°C / 50% r.h.)	(DIN 53505)
E-Modulus	~ 0.4 N/mm² at 100% elongation (+23°C / 50% r.h.)	(DIN EN ISO 8340)
Elongation at Break	~ 700% (+23°C / 50% r.h.)	(DIN 53504)
Elastic Recovery	> 70% (+23°C / 50% r.h.)	(DIN EN ISO 7389 B)

System Information

Application Details

Consumption / Joint Design

The joint width must be designed to accommodate the movement capability of the sealant. In general the joint width must be > 10 mm and < 35 mm. The width to depth ration of 2 : 1 must be respected.

Standard dimensions for concrete elements (as per DIN 18540 / table 3)

Joint distance	2	2 - 3.5 m	3.5 - 5 m	5 - 6.5 m	6.5 - 8 m
Joint width	15 mm	20 mm	25 mm	30 mm	35 mm
Joint depth	8 mm	10 mm	12 mm	15 mm	15 mm

Minimum joint width for joints around windows: 10 mm.

Joints must be properly dimensioned as changes are normally no longer feasible after construction. Basis for calculation of the necessary joint width are the technical characteristic values of the joint sealant and the adjacent building materials, the exposure of the building elements, their construction and size.

Joint width	10 mm	15 mm	20 mm	25 mm	30 mm
Joint depth	8 mm	8 mm	10 mm	12 mm	15 mm
Joint length / 600 ml	~ 7.5 m	~ 4.5 m	~ 2.5 m	~ 1.6 m	~ 1.3 m

The stated values are indications only.

Backfilling:
Use only close cell, sealant compatible foam backer rods e.g. high resilience polyethylene foam rod.

Substrate Quality

Clean and dry, homogeneous, free from grease, dust and loose particles. Paint, laitance and other poorly adhering particles must be removed. Standard construction rules must be observed.

Substrate Preparation / Priming

Sika Primer-3 N:
For porous substrates e.g. concrete, aerated concrete and cement plaster
Flash off time: min. 30 minutes, max. 8 hours

Sika® Cleaner-205:
For powder coatings, EP and PU coatings
Flash off time: 15 minutes

Sika® Primer-21:
For PVC and for mortar in connection joints between PVC and building
Flash off time: min. 30 minutes, max. 8 hours

Sika® Primer-35:
For metals e.g. aluminium, noble steel, galvanised steel
Flash off time: min. 30 minutes, max. 8 hours

Primers are only adhesion promoters. They neither substitute the thorough cleaning of the surface nor improve their strength significantly.

For further information see Sika® Primer list.

Application Conditions / Limitations

Substrate Temperature	+5°C min. / +40°C max.
Ambient Temperature	+5°C min. / +40°C max.
Substrate Humidity	Dry

Application Instructions

Application Method / Tools	**Sikaflex® Construction (D)** is ready to use. After suitable joint preparation and properly prepared substrate, the sealant is gunned into place and tooled with a spatula or suitable smoothing liquid. When tooling **Sikaflex® Construction (D)** it's necessary to pressure the sealant into the joint flanks.
Cleaning of Tools	Clean all tools and application equipment with sealant remover / Sika Cleaner immediately after use. Hardened / cured material can only be mechanically removed.
Notes on Application / Limitations	Elastic sealants must not be over painted in general! Sealant compatible coatings may cover the joint sides to max. 1 mm. The compatibility must be tested individually according to DIN 52 452-2. Colour deviations may occur due to chemicals, high temperature, UV-radiation (especially with colour shade white). A change in colour does not influence the technical and performance of the product. Before using on natural stone contact our Technical Service. Do not use **Sikaflex®-Construction (D)** as glass sealer, in floor joints and in joints with permanent water immersion. Do not use on bituminous substrates, natural rubber, chloropene, EPDM or on building materials which might bleed oils, plastisicers or solvent.
Notes	All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.
Local Restrictions	Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.
Health and Safety Information	For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

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Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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